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Conference Abstract

Finnish Citizen Science Based Bird Monitoring Schemes and User Interfaces in FinBIF

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Abstract

Monitoring of bird populations is based primarily on volunteer birdwatcher activity in Finland. Hence, development of online user interfaces and data availability have become a priority in order to encourage bird watchers to participate in monitoring schemes.

Most Finnish bird monitoring is managed by the Finnish Museum of Natural History LUOMUS, which oversees a wide spectrum of long-running programs including: a bird ringing (banding) scheme running since 1913, a winter bird census established in 1956, a breeding bird census initiated in 1975, a raptor monitoring program started in 1982, and, a nest recording scheme ongoing since the 1940s. In 2018, more than 1,500 volunteer birdwatchers participated in LUOMUS bird monitoring schemes. Data gathered from these programs constitute our basis of knowledge on national bird populations and demographic trends and are actively incorporated in conservation, scientific, land-use planning, and administrative purposes in Finland. In principle, all data are open and freely accessible via the Finnish Biodiversity Information Facility (FinBIF), however, the law prohibits authorities from distributing species occurrence data if this causes an increased threat to certain endangered species. Accordingly, sensitive data details are not available.

Reporting valuable fieldwork data can sometimes be demanding. As such, developing user-friendly interfaces for data portals is critical to facilitating volunteer activity. Essential tools for volunteers include a simple login, smooth and augmented data input,

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automated validation of data, and, perhaps most importantly, ease of access to up-to-date data. Crucial to administrators are system reliability, operability, and easy data management. Comprehensive data validation and visualization tools and extensive search functions aid in revealing errors and thereby increase data quality. Finally, simple query tools and easy access to data are of paramount importance for smooth abd flexible use of the data.

Keeping in mind these demands, we have developed the main FinBIF platform and project-specific user interfaces in order to facilitate participation in bird monitoring programs. We will introduce these user interfaces and our achievements and challenges in the development process.

Keywords

bird monitoring, ringing, citizen science, open science, user interface

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